
Input/Output Diagnostic (LD 37)

This program is used to diagnose faults with disk units, tape units, teletypewriter (TTY) or Serial Data Interface (SDI) packs, used with modems to remote TTY. It provides enable, disable, status indication and test functions on these devices. Problems are indicated in IOD messages.

IOD messages

IOD0000	Program 37 identifier. No action.
IOD0001	Invalid command. Action: Check data and begin again.
IOD0002	Invalid argument(s). Action: Check data and begin again.
IOD0003	Customer nonexistent or out-of-range. Range is 0 to 31. Action: Check data and begin again.
IOD0004	Device number is out-of-range. Range is 0 to 7 or 0 to 15. Action: Check data and begin again.
IOD0005	Requested device is not defined in system. Action: Check data and begin again.
IOD0006	Interface pack failed to respond. A pack fault is indicated. Device cannot be Action: Check enable switch on pack. If pack still does not respond, a pack fault is indicated. This information is also displayed on the maintenance display. Refer to the Maintenance Display Codes Table.

IOD0007	Interface pack has a permanent interrupt. Device cannot be enabled until fault is cleared. (Minor alarm.)
IOD0009	Disabling of active input device is not allowed. Action: Go to different TTY or use SL-1 maintenance set.
IOD0010	Device cannot be enabled because extender to network shelf is disabled. Action: Use LD 35 to re-enable extender before proceeding.
IOD0011	CDR tape not positioned after last record.
IOD0012	RW test not allowed on Mini-CDR tape.
IOD0021	Illegal character was entered while tape data was running. Only END is permitted while TEST is in progress.
IOD0030	Command not allowed for ESDI port.
IOD0040 n	TTY or printer n is not emptying the output buffer. Output circuitry on pack is faulty. The device is disabled. Probable fault is on pack in question. This information is also displayed on the maintenance display. If fault persists after pack is replaced, suspect: 1. Miscellaneous pack on active CPU 2. Other serial data interface
IOD0041 n	TTY n is producing incoherent or too much (over a defined threshold) input. The pack has been disabled. Either the device is faulty or it is connected to a very noisy data line. This information is also displayed on the maintenance display. With X11 Release 19 and later, I/O Port auto Lock out Recovery is operating. This message indicates the TTY was left disabled because it had been locked out and re-enabled three times in the last 30 minutes. Action: Manually re-enable the port to bring it back to service.
IOD0050 n	MSI/Tape unit n is not ready. Action: Check disk/tape cartridge for proper seating. With disk systems, try operation again while watching the Mass Storage Interface display.
IOD0051 e n	Timeout or early warning on tape unit n before checking. Error codes (e): A = read directory timeout B = check directory timeout C = check track 3 timeout

D = check track 4 timeout
E = find last Overlay record timeout
F = read EOF (End-of-File) timeout
G = erase fault
W = tape initialization timeout
X = position check (tape read) timeout
Y = early warning point reached
Z = find record timeout
1,2 = timeout or early warning on MSI/tape unit 1 or 2 while reading.

- IOD0052 Early warning point reached. IOD0060 n
MSI/Tape Interface pack fault for MSI/tape unit n.
- IOD0061 n Faulty track select on MSI/tape unit n. IOD0062 n
Tape cartridge missing or defective bulb on tape unit n.
Action: Check cartridge and bulb. Check drive A and drive B.
- IOD0063 n Tape wound off end of reel of tape unit n or defective tape unit n.
Action: Check cartridge, or check disk on MSI unit n.
- IOD0064 n Interrupt fault on tape interface (TI) pack for unit n.
Action: Check cartridge, or check disk on MSI unit n.
- IOD0065 n Unable to position disk/tape correctly on MSI drive A/B or tape unit n due to faulty tape or interrupt fault.
- IOD0066 n MSI/tape motion error detector on MSI/tape unit n malfunctioning. Minor alarm
- IOD0067 n Tape control electronics is allowing improper tape motion on tape unit n. Minor alarm. MSI control not working (no alarm).
- IOD0068 n Defective interval timer on interface card for tape unit n (Minor alarm). MSI timer not working (no alarm).
- IOD0069 n Incorrect tape speed or failure to detect tape position changes on tape unit n. Possible defect in positioning of front cover.
Action: Remove cover and test cartridge (Minor alarm), or MSI timer not working.

IOD0070 n	Hardware on tape unit n failed to automatically stop motion at cartridge limits (Minor alarm), or MSI timer not working.
IOD0071 n	Bad data on disk/tape or defective cartridge in MSI/tape unit n.
IOD0072 n	Faulty track select or defective cartridge in MSI/tape unit n.
IOD0073 n	Faulty write protect mechanism which allows writing on protected data track of MSI/tape.
IOD0074 n	Tape cartridge on tape unit U set to SAFE; test cannot continue. Test automatically continues when cartridge is replaced, or MSI floppy disk B is write protection is removed.
IOD0075 e c n	Erase or write fault on tape unit n.c is the EOF record count (normally 9) and is given only when e = J. e appears as one of the following codes: 1, 2 = MSI/tape unit has erase or write fault. Possible faults include dirty tape heads, faulty cartridge or faulty drive interface J = write unsuccessful after four attempts K = skip back timeout L = not EOF when EOF expected or timeout M = read buffer full N = read buffer full O = timeout checking read buffer P = EOF record not found before starting check pattern Q = write check pattern timeout R = read check pattern timeout S = read check pattern timeout T = check pattern record count error U = read EOF (to start erase) timeout V = no EOF when expected or timeout
IOD0076 n	SI/tape unit n has problems reading data from disk/tape.
IOD0077 n	MSI/tape unit n has problems writing data on tape
IOD0078 n	Hardware fault on MSI/tape unit n cause momentary 'Not Ready' indication.

IOD0079 n	Tape cartridge on tape unit n has bad directory (Minor alarm), or bad directory in MSI system.
IOD0080 n	Disk/tape cartridge on MSI/tape unit n has missing 'end of disk/file'. IOD0100 x y Meaning depends on the output data: IOD100 1 t = Head fault or bad record on track t. IOD100 e n = Timeout or early warning during checking MSI/tape unit n. See IOD051 for error e. Suspect tape cartridge, interface, cable(s) or tape shelf. Action: Swapping active and secondary tape interfaces and cables may help to isolate the problem. IOD100 n t = Track t disabled due to time-out or early warning initializing MSI/tape unit n.
IOD0101 x y	Meaning depends on the output: IOD101 1 t = Requested data record not found on track t. IOD101 n t = Data record not found on track t on MSI/tape unit n. The data was loaded because it was duplicated. See IOD100 for possible faults. IOD101 t n r = Data record rewritten by TAPE module on MSI/tape n, record r. IOD101 e n t = Data record not found on tape n track r, e appears as one of the following codes: A = tape initialization B = read directory C = read data record (after read directory) D = read test record E = read EOF record F = read data record (after test) G = read last overlay record H = read checking track 1 or 3 I = read checking track 2 or 4
IOD0110	Meaning depends on the output data: IOD110 n = Data record not found on both tracks of tape unit n. The data from the tape could not be loaded. See IOD100 for possible faults. IOD110 1 t = Requested data record not found on track t.

IOD

IOD0111 n	Tape unit n is disabled. Enable tape unit.
IOD0112	Cannot perform TTY tests on PMS link.
IOD0200 1	Tape disabled detected during write effort. Write effort suspended.
IOD0201 1	Tape not equipped detected during write effort. Write effort suspended.
IOD0203 1	Tape not ready detected during write effort. Write effort suspended.
IOD0204 1	Tape write protected detected during write effort. Write effort suspended.
IOD0205 1	Early warning detected during write effort. Write effort suspended if track 3.
IOD0206 1	Read error detected during write effort. Hardware fault suspected. Write effort suspended.
IOD0207 1	Write error detected during write effort. Write effort suspended after retries fail.
IOD0208 1	Record not found error detected during write effort. Hardware fault suspected. Write effort suspended.
IOD0209 1	Timeout detected during write effort. Write effort suspended.
IOD0210 1	Tape is put in tape full state. Write effort suspended.
IOD0211 1	CDR tape has been locked too long. Write effort suspended.
IOD0212 1	CDR tape is now at least 75 percent full.
IOD0250 1	Tape response idle while erasing. Hardware fault suspected.
IOD0251 1	Mini-CDR tape disabled.
IOD0252 1	Mini-CDR tape unequipped.
IOD0254 1	Mini-CDR tape not ready.
IOD0255 1	Mini-CDR tape write protected.
IOD0256 1	Early warning hit.
IOD0257 1	Read error detected.
IOD0258 1	Write error detected.
IOD0259 1	Record not found.

IOD0260 1	Timeout occurred.
IOD0261	Use LD 48 to enable or disable CND TTY.
IOD0280	Use tape command.
IOD0281	Use MSI command.
IOD0282	Command not allowed for MSI equipped system.
IOD0283	Primary MSU not responding.
IOD0284	Secondary MSU not responding.
IOD0290	MSI self-test time out. MSI is not responding.
IOD0291	MSI memory is faulty.
IOD0292	MSI control is faulty.
IOD0293	MSI drive A failed self-test.
IOD0294	MSI drive B failed self-test.
IOD0295	MSI drive C failed self-test.
IOD0296	MSI drive not configured.
IOD0297	Mass Storage Interface (MSI) floppy drive failed self-test.
IOD0298	Mass Storage Interface (MSI) software configuration does not match the hardware. Action: Update the configuration record (LD 17).
IOD0300	No response received from System Monitor (NT8D22) after sending status request message.
IOD0301	There are no master System Monitor (NT8D22) port defined. Action: Use LD 17 to define the master System Monitor port.
IOD0302	Invalid command.
IOD0306 x	Could not test TTY due to one of the following reasons (where x = port number): 1. Self test is not supported on type of TTY 2. TTY is not in the correct state to run self test Action: Put the TTY in the enable and operational state and run the test again.

IOD0307 x	The Meridian 1 timed out waiting for a response to the enable SDI application message sent to the MSDL card. Where: x = port number Action: If this error message is received twice in a row when attempting to enable the TTY, be sure the MSDL is enabled and remains that way for the next few minutes. If the problem still persists, disable and re-enable the MSDL card.
IOD0308 x	The MSDL cannot enable the SDI application. Where: x = port number Action: If this error message is received more than twice in a row when attempting to enable the TTY, try using the FDL option so that the application is re-downloaded to the card.
IOD0309 x	The SDI application in transient state. Where: x = port number. Action: Try again.
IOD0314	That command does not apply to the Pseudo TTY (PTY).
IOD0315 x	Failure to download the device setup. The device will still be enabled with the current setup. X indicates the failure reason: 0 = fail to download due to device data corruption 1 = fail to change baud rate 2 = fail to change device setup such as data bit, stop bit, or parity type 3 = fail to change control option
IOD0316	It is not possible to enable the TTY/PRT without first enabling the MSDL card. Issue the ENL MSDL {x} command.
IOD0317	The MSI and Tape related command are not applicable to this machine. Action: Use LD137 to issue any maintenance and diagnostic for IOPs and CMDUs.
IOD0318 x	TTY x was disabled due to invalid characters and will be automatically enabled in 4 minutes.
IOD0319 x	TTY x was automatically enabled.
IOD0320 x	TTY x has been disabled 3 times, the maximum allowed, during the last 30 minutes. It will not be automatically enabled.
IOD0321	Cannot disable the TTY used to access non Meridian 1 task (PDT/VxWorks Shell, for example).

IOD0322	Int detected: unconfig'd IO device; grp X at vaddr Y device has been H/W disabled
IOD0323	Int detected: S/W disabled IO device; grp X at vaddr Y device has been H/W disabled
IOD0327 x	Overlay command cannot be executed due to one of the following conditions: 1. The port is not in the correct state for the command to be executed 2. The port is already in the right state Action: Check port state and try again. Where: x = port number
IOD0328 x y z	MSDL SDI target state has been changed. No action needed. Where: x = port number, y = original target, and z = new target
IOD0329 x y	Event: Application download failed. Where: x = port number and y = failure reason. Where: 3 - maintenance in progress 4 - transmit xbuffer busy 6 - no maintenance socket id 11 - force download not allowed 10, others - download failed Action: 3 - wait 6 - reconfigure port, then enable port again 4, 10, 11, others - disable the MSDL card, reset it and then try again.
IOD0331 x y z	The port is disabled by the system. Where: x = port number; y = disable reason Where: 1 = enable application failed 2 = status errno 3 - primitive timeout (z = port state port substate if state is test) 4 - MSDL Handler failure 5 - disable indication received (z = 15 - bad rs232/422 switch setting; 16 - bad dte/dce switch setting; 17 - not enough memory) 6 - PSDL threshold exceeded

7 - MSDL card is system disabled

Action: 1, 2, 3, 4, 6 - disable the MSDL card, reset it and then try again.

5 - {z} = 15, 16 - check the MSDL card hardware setting.

{z} = 17 - disable the MSDI card, reset it and then try again.

7 - reset the MSDL card and then try again.

IOD0332 x y The port is enabled but not ready. Where: x = port number and y = not ready reason}

Where:

0 - autobauding

1 - await modem to be connected

2 - dtr is down

3 - await terminal (vt220) verification

Action: 0 - enter {carriage returns} to trigger port to be autobauded

1 - check modem connection

2 - check cable connection

3 - no action needed

IOD0333 x The port is now operational; previously it is enabled but not ready. Where: x = port number

IOD0334 x The port is put into midnight recovery. Where: x = port number

Action: To enable port, disable it first and then enable it, or wait for midnight recovery to occur.

IOD0335 x Auto-recovery is complete. Where: x = port number

IOD0336 x y z Auto-recovery in progress. Where: x = port number, y = recv attempt no - 1, 2, or 3, and z = cause for recovery - {disable reason}

Action: Wait for auto-recovery to complete.

IOD0337 HSPR command attempted, but HOSP package unequipped.

IOD0338 HSPR command attempted, but no PMS ports configured.

IOD0339 x STA disable process failed because application says so. Where: x = STA logical number

IOD0340 x	Overlay command cannot be executed. One of the following may have taken place. Where: x = STA logical number 1. STA application is not in the correct state for the command to be executed 2. STA application is already in the right state
IOD0341 x y z	STA application encounters operational errors and auto-recovery process is activated to recover. Where: x = STA logical number y = Type of Operational Errors 1: Fail to enable STA application 2: Status error 3: Primitive timeout 4: MSDL Handler failure 5: STA loadware suicide 6: PSDL threshold failure z = Reason for STA loadware suicide (for y = 5 only) 15: Wrong RS232/RS422 switch setting 16: Wrong DTE/DCE setting 17: Not enough memory 18: Fail to detect VT220 19: STA loadware layer 2 bug
IOD0342 x	STA application is put in midnight recovery. No more auto-recovery will be attempted until midnight. Where: x = STA logical number
IOD0343	Cannot use "DIS TTY #" to disable STA administration terminal.
IOD0344	Cannot use "ENL TTY #" to enable STA administration terminal.
IOD0345	TTY self test is not allowed on STA administration terminal.
IOD0346 x y z	STA auto-recovery is in progress. Where: x = STA logical number

y = Counts for STA's attempt to recover. (If y is greater than or equal to 3, STA is put to midnight recovery.)

z = Operational Errors which cause auto-recovery

1: Fail to enable STA application

2: Status error

3: Primitive timeout

4: MSDL Handler failure

5: STA loadware suicide

6: PSDL threshold failure

7: MSDL system enabled

IOD0347 x STA auto-recovery has been completed. Where: x = STA logical number.

IOD0349 SDI port is not configured for MTC and SCH.

Action: Either add MTC and SCH to SDI port or use another valid SDI port.

IOD0350 Point-to-Point Protocol interface is disabled.

Action: Issue the command "ENL PPP" in LD 117.

IOD0351 Active Point-to-Point Protocol session has been found.

Action: Wait until current PPP session is terminated.

IOD0352 Point-to-Point Protocol task has failed to start.

Action: Check system port for additional information regarding possible causes of the failure.

IOD0353 Invalid PTY port. PTY port is not supported.

IOD0357 Resume interrupt service for cabinet.

IOD0358 Stuck interrupt in cabinet. It may be caused by a damaged pack in the cabinet.

Action: Check for offending packs in the cabinet.

IOD0359 Failed to service interrupt for Cabinet. Cannot identify the device that is raising the interrupt.

IOD0360 Failed to service interrupt for Cabinet. Interrupt is masked.

Action: Check for offending packs in that cabinet

IOD0361 Unable to set event ISR for the cabinet.

Action: Contact your technical support group.

IOD0362 Unable to install the CardLAN interface.
Action: Contact your technical support group.